REMARKS

Careful review and examination of the subject application are noted and appreciated.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the claim amendments can be found in claims 8 (moved into claim 1), 24 (moved into claim 17) and 26 (partially copied into claim 16). Thus, no new matter has been added and no new issues have been raised for the independent claims.

IN THE DRAWINGS

While Applicant's representative does not necessarily agree with the requirement to label FIGS. 1-2, in order to further prosecution, FIGS. 1-2 have been labeled "conventional". Replacement FIGS. 1-2 are submitted herewith. As such, the objection to the drawings should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

The rejection of claims 7 and 21 under 35 U.S.C. §112, first paragraph, is respectfully traversed and should be withdrawn.

Regarding claim 7, FIG. 8 and the associated text on page 33, lines 9-15 of the application illustrate an example Simple Data Link package including a payload header 204a. FIG. 9 and the associated text on page 34, lines 9-13 illustrate an example of the

payload header field 204a including a packet identifier field 280. The packet identifier field 280 of FIG. 9 shows examples of several different types of protocols that may be identified for the packet. Therefore, the specification describes claim 7 in such a way as to reasonably convey to one or ordinary skill in the art that the inventor had possession of claim 7 at the time the application was filed. As such, claim 7 is compliant with 35 U.S.C. §112, first paragraph and the rejection should be withdrawn.

Regarding claim 21, FIG. 9 and the associated text on page 34, lines 18-21 of the application illustrate an example of the package header field 204a including a header data field 282. FIG. 9 further shows examples in the header data field 282 for a "001" value used to indicate MPLS labels and a "000" value to indicate none (e.g., no MPLS labels/OAM Cells). The "000" none value is consistent with the text on page 33, lines 13-15 of the application that describes the MPLS Route Labels/OAM Cells field 268 (FIG. 8) as optional (e.g., no labels). Therefore, the specification describes claim 21 in such a way as to reasonably convey to one or ordinary skill in the art that the inventor had possession of claim 21 at the time the application was filed. As such, claim 21 is compliant with 35 U.S.C. §112, first paragraph and the rejection should be withdrawn. As no other rejection exists for claim 21 as required under MPEP §2163, section III, **claim 21 should be allowable.**

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 1, 3, 8-10, 12-17, 22, 25 and 27 under 35 U.S.C. §102(e) as being anticipated by Chan et al. '254 (hereafter Chan) has been obviated by appropriate amendment and should be withdrawn.

Chan concerns a virtual path ring protection method and apparatus (Title). In contrast, claim 1 provides a first packet having one or more labels configured to control routing of the first packet through a network, a link layer address following the labels and a payload to carry information. In contrast, Chan appears to be silent regarding a packet having label and a link layer address. Appendix A (*Encyclopedia of Networking*, pages 60-61, Osborn/McGraw-Hill, Berkeley, California, 1998) illustrates details of an ATM layer. The illustration of the ATM layer does not appear to show any address following the Virtual Path Identifier (asserted similar to the claimed labels). Furthermore, the assertion on page 4 of the Office Action that an ATM layer inherently corresponds to the data link layer and the network layer of the OSI model is respectfully traversed as inherency requires certainty, not mere possibility. (See, e.g., *Ethyl Molded Products Co. v. Betts Package, Inc.*, 9 U.S.P.Q. 2d 1001 (E.D.Ky 1988). See also, In re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (C.C.P.A. 1981)). Appendix A, Figure A-12 illustrates an ATM layer where no **address** is present after the VPI bits and thus a link layer address

is not inherent to an ATM cell. Therefore, Chan does not appear to disclose or suggest a first packet having one or more labels configured to control routing of the first packet through a network, a link layer address following the labels and a payload to carry information as presently claimed. As such, the claimed invention is fully patentable over the cited reference and the rejection should be withdrawn.

Claim 16 provides a packet envelope carrying a plurality of packets, wherein a first of the packets has a first protocol and a second of the packets has a second protocol unrelated to the first protocol. In contrast, Chan appears to be silent regarding multiple protocols in one packet envelope. Therefore, Chan does not appear to disclose or suggest a packet envelope carrying a plurality of packets, wherein a first of the packets has a first protocol and a second of the packets has a second protocol unrelated to the first protocol as presently claimed.

Furthermore, the assertion on page 7, item 18 (arguing claim 26) that Narayana '983 teaches a network allowing disparate network equipment to communicate via a shared network is moot since Narayana is not a valid prior art reference. The earliest data for Narayana of February 26, 2001 (provisional filing date) is **after** the filing data of March 27, 2000 for the present application. As such, the claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Claim 17 provides a step for switching a first packet to another network in response to one or more labels from the first packet. In contrast, Chan appears to be silent regarding switching packets between networks in response to labels. Therefore, Chan does not appear to disclose or suggest a step for switching a first packet to another network in response to one or more labels from the first packet as presently claimed.

Furthermore, the assertion on page 7, item 18 (arguing claim 24) that Narayana teaches a network allowing disparate network equipment to communicate via a shared network is moot since Narayana is not a valid prior art reference. The earliest data for Narayana of February 26, 2001 (provisional filing date) is **after** the filing data of March 27, 2000 for the present application. As such, the claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 5 and 23 under 35 U.S.C. §103(a) as being unpatentable over Chan in view of O'Connor '544 is respectfully traversed and should be withdrawn.

The rejection of claim 7 under 35 U.S.C. §103(a) as being unpatentable over Chan in view of Goodman et al. '529 (hereafter Goodman) is respectfully traversed and should be withdrawn.

The rejection of claims 24 and 26 under 35 U.S.C. §103(a) as being unpatentable over Chan in view of Narayana et al. '983 (hereafter Narayana) is respectfully traversed and should be withdrawn.

Chan concerns a virtual path ring protection method and apparatus (Title). O'Connor concerns a SONET add/drop multiplexer with packet over SONET capability (Title). Goodman concerns a semi transparent tributary for synchronous transmission (Title). Narayana concerns data packet transmission scheduling using a partitioned heap (Title).

Claim 5 provides (from claim 1) a frame comprising a packet envelope carrying a plurality of packets, wherein a first of the packets has one or more labels configured to control routing of the first packet through a network and (from claim 5) the one or more labels comprise Multi-Protocol Label Switching labels. Assuming, *arguendo*, that it would have been obvious to combine Chan and O'Connor (for which Applicant's representative does not necessarily agree), the proposed combination implementing the MPLS from O'Connor over the SONET network of Chan does not appear to show an MPLS frame comprising a packet envelope carrying a plurality of packets as presently claimed. Therefore, Chan and O'Connor, alone or in combination, do not appear to teach or suggest a frame comprising a packet envelope carrying a plurality of packets, wherein a first of the packets has one or more labels

configured to control routing of the first packet through a network and the one or more labels comprise Multi-Protocol Label Switching labels as presently claimed.

Assuming, *arguendo*, that the proposed combination was meant to combine the MPLS labels of O'Connor into the ATM cell headers of Chan, no evidence is provided in the Office Action for (i) motivation to make the above combination and (ii) a reasonable expectation of success. Therefore, *prima facie* obviousness has not been established. Claim 23 provides language similar to claim 5. As such, claims 5 and 23 are fully patentable over the cited references and the rejection should be withdrawn.

Claim 7 provides at least one packet comprising a Simple Data Link packet with a payload header configured to store configuration information to identify one of a plurality of protocols used in the packet. In contrast, both Chan and Goodman appear to be silent regarding a payload header configured in the SDL packet to store configuration information for protocols. Furthermore, the arguments provided in page 5, item 15 of the Office Action do not discuss the payload header in the SDL. Therefore, Chan and Goodman, alone or in combination, do not appear to teach or suggest at least one packet comprising a Simple Data Link packet with a payload header configured to store configuration information to identify one of a plurality of protocols used in the

packet as presently claimed. As such, claim 7 is fully patentable over the cited reference and the rejection should be withdrawn.

Regarding claims 24 and 26, Narayana is not a valid prior art reference. The earliest data for Narayana of February 26, 2001 (provisional filing date) is after the filing data of March 27, 2000 for the present application. As such, claims 24 and 26 are fully patentable over the cited references and the rejection should be withdrawn.

Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicant's representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office Account No. 50-0541.

Respectfully submitted,

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Docket No.: 0325.00345

Appendix A

"I just don't see how anyone can run their network without it."
—Terè Parnell, Executive Technology Editor, *LAN Times*

LANTIMES

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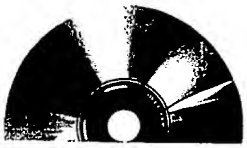

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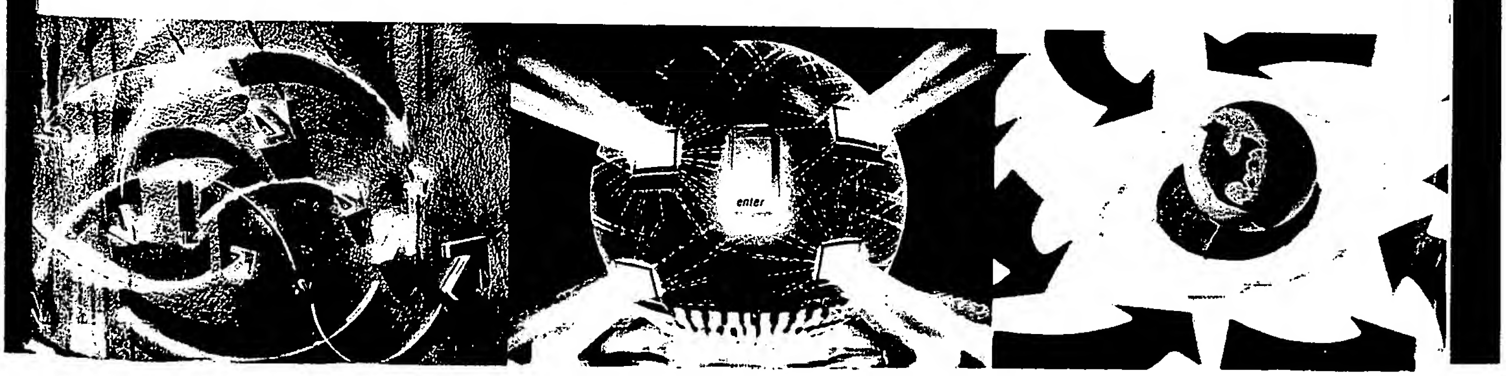

Appendix A

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Appendix A

The Physical Layer

The physical layer of ATM does not define any one specific medium. LANs were designed for coaxial or twisted-pair cable and have rigid specifications that define the exact bandwidth. The specifications were established to match the electrical components available at the time of design. ATM supports many different media, including existing media used by other communications systems.

Industry experts are endorsing SONET (Synchronous Optical Network) as the ATM physical transport media for both LAN and WAN applications. The ATM Forum is recommending FDDI (100 Mbits/sec), Fibre Channel (155 Mbits/sec), OC3 SONET (155 Mbits/sec), and T3 (45 Mbits/sec) as the physical interfaces for ATM. Currently, most carriers are providing T3 links to their ATM networks.

The ATM Layer

The ATM layer defines the structure of the ATM cell. It also defines virtual channel and path routing, as well as error control.

There are two forms of the ATM cell header. One is the UNI (User Network Interface), which is used in cells sent by users, and the other is the NNI (Network-to-Network Interface), which is sent by switches to other switches. The UNI cell is

GFC	Generic Flow Control
VPI	Virtual Path Identifier
VCI	Virtual Channel Identifier
PTI	Payload Type Indicator
RES	Reserved
CLP	Cell Loss Priority
HEC	Header Error Control

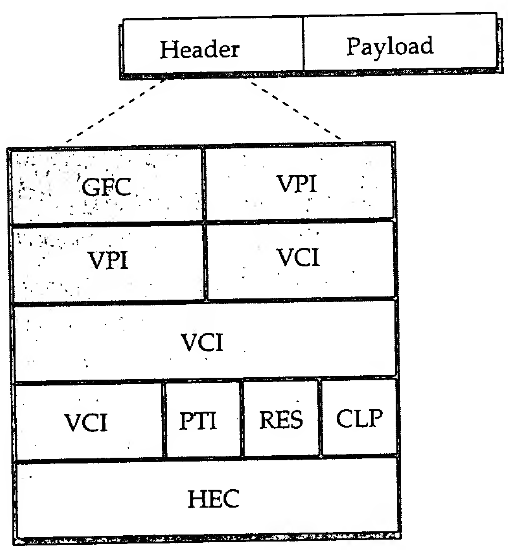

Figure A-12. *The ATM cell with the UNI header*

pictured in Figure
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Appendix A

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pictured in Figure A-12. The NNI cell does not have the GFC (Generic Flow Control) field.

The cell is 53 bytes in length: 48 bytes for payload and 5 bytes for header information. Note that header information is almost 10 percent of the cell, which adds up to extensive overhead on long transmissions. ATM cells are packets of information that contain *payload* (data) and header information that contain channel and path information to direct the cell to its destination. The information held by each field in the header is explained here:

- **GFC (Generic Flow Control)** This field is still undefined in the UNI cell header and is not even in the NNI cell header.
- **VPI (Virtual Path Identifier)** Identifies virtual paths between users or between users and networks.
- **VCI (Virtual Channel Identifier)** Identifies virtual channels between users or between users and networks.
- **PTI (Payload Type Indicator)** Indicates the type of information in the payload area, such as user, network, or management information.
- **CLP (Cell Loss Priority)** Defines how to drop certain cells if network congestion occurs. The field holds priority values, with 0 indicating a cell of the highest value.
- **HEC (Header Error Control)** Provides information for error detection and correction of single bit errors.

AAL (ATM Adaptation Layer)

AAL converges packets from upper layers into ATM cells. For example, in the case of a 1K packet, AAL would segment it into 21 fragments and place each fragment into a cell for transport.

AAL has several service types and classes of operation to accommodate different types of traffic. The service classes categorize applications based on how bits are transmitted, the required bandwidth, and the types of connections required. Figure A-13 illustrates the different types and classes of service.

- **Type 1** A connection-oriented CBR (constant bit rate) service with timing for audio and video applications. It is similar to T1 or T3 and provides a variety of data rates.
- **Type 2** A connection-oriented VBR (variable bit rate) service for real-time applications where minor loss is acceptable, and for non-real-time VBR, such as transaction processing.
- **Type 3/4** An ABR (available bit rate) service for non-time-critical applications such as LAN internetworking and LAN emulation. A base level of service is guaranteed, and extra bandwidth is available for traffic spikes if the network capacity is not filled.